5

10

407T-893910US

USE OF LOW DOSAGE BISPHOSPHONATES TO INHIBIT CARDIAC AND ARTERIAL CALCIFICATION

ABSTRACT OF THE DISCLOSURE

This invention provides methods of inhibiting calcification of a soft tissue (e.g., an artery, a heart valve, an atherosclerotic plaque, a cancer, a kidney, a prostate, skin, muscle, cartilage, viscera, and heart muscle) in a mammal. These methods involve inhibiting osteoclastic bone resorption in said mammal (e.g., a mammal diagnosed as having or at risk for a pathology characterized by calcification of a soft tissue). The inhibition is preferably by administration of a bisphosphonate to the mammal in a concentration sufficient to inhibit bone resorption without inhibiting bone mineralization. The methods of this invention can also be used to mitigate a symptom of atherosclerosis in a mammal. Such methods involve inhibiting osteoclastic bone resorption in the mammal. In preferred embodiment, the inhibiting is by administration of a bisphosphonate to the mammal in a concentration sufficient to inhibit bone resorption without inhibiting bone mineralization